

## Freeform Search

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**Database:** EPO Abstracts Database  
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**Term:** 11 and cDNA

**Display:** 10 Documents in Display Format: - Starting with Number 1

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### Search History

**DATE:** Wednesday, April 21, 2004 [Printable Copy](#) [Create Case](#)

**Set Name** Query  
side by side

**Hit Count** Set Name  
result set

*DB=USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ*

<u>L4</u>	L3 and single stand binding protein	0	<u>L4</u>
<u>L3</u>	11 and cDNA	1	<u>L3</u>
<u>L2</u>	11 and (taq polymerase or reverse transcriptase)	0	<u>L2</u>
<u>L1</u>	5593834.pn.	2	<u>L1</u>

END OF SEARCH HISTORY

## Freeform Search

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US Pre-Grant Publication Full-Text Database
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<b>Database:</b> EPO Abstracts Database
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Derwent World Patents Index
IBM Technical Disclosure Bulletins

Term: L9 and single strand binding protein

Display: 10 Documents in Display Format: - Starting with Number 21

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**Search** **Clear** **Interrupt**

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### Search History

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**DATE:** Wednesday, April 21, 2004 [Printable Copy](#) [Create Case](#)

<u>Set</u>		<u>Hit</u>	<u>Set</u>
<u>Name</u>	<u>Query</u>	<u>Count</u>	<u>Name</u>
side by side			result set
DB=USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=ADJ			
<u>L10</u>	L9 and single strand binding protein	1	<u>L10</u>
<u>L9</u>	baugh.in.	755	<u>L9</u>
<u>L8</u>	L7 and single strand binding protein	1	<u>L8</u>
<u>L7</u>	hunter.in.	7024	<u>L7</u>
<u>L6</u>	L5 and cDNA	24	<u>L6</u>
<u>L5</u>	L4 and reverse transcri\$7	24	<u>L5</u>
<u>L4</u>	taq polymerase and single strand binding protein	38	<u>L4</u>
<u>L3</u>	taq polymerase and T4GP32	0	<u>L3</u>
<u>L2</u>	taq polymerase same single strand binding protein	0	<u>L2</u>
<u>L1</u>	taq polymerase same single-strand binding protein same reverse transcri\$7	0	<u>L1</u>

END OF SEARCH HISTORY



US 1993-153535 19931117  
US 1994-224840 19940408  
US 1994-260200 19940616  
WO 1994-US6800 19940616

AB The title improvement comprises providing for thermodn. rather than thermal cycling and thereby allowing the reaction to proceed under isothermal conditions. The thermodn. cycling is provided for by including in the reaction a balanced mixture of single-strand and duplex nucleic acid binding ligands to insure that the reaction (formation of duplex from single-stranded nucleic acid) proceeds in both directions at rates which allow the production of a significant level of a desired product. Inclusion of an appropriate level of single-strand binding ligand can also result in more selective hybridization and thus allow greater selectivity in hybridization-based reactions. The concept was applied to PCR and allowed isothermal PCR to be demonstrated. **Tag polymerase** and **single-strand binding protein** were used as the double-stranded and single-stranded DNA binding proteins, resp.

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=> s transcriptase(P) (single strand binding protein or RecA)  
L5 43 TRANSCRIPTASE(P) (SINGLE STRAND BINDING PROTEIN OR RECA)

=> s 15 and (produc### or mak### or synthesiz###) (10a) cDNA  
L6 0 L5 AND (PRODUC### OR MAK### OR SYNTHESIZ###) (10A) CDNA

=> s 15 and (amplif##### (10a) cDNA  
UNMATCHED LEFT PARENTHESIS 'AND (AMPLIF#####'  
The number of right parentheses in a query must be equal to the  
number of left parentheses.

=> s 15 and (amplif##### (10a) cDNA)  
L7 0 L5 AND (AMPLIF##### (10A) CDNA)

=> s 15 and cDNA  
L8 3 L5 AND CDNA

=> dup rem 18  
PROCESSING COMPLETED FOR L8  
L9 3 DUP REM L8 (0 DUPLICATES REMOVED)

=> d 19 1-3 bib ab kwic

L9 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:971610 CAPLUS  
DN 140:24132  
TI DNA polymerase mutants with increased reverse transcriptase activity  
IN Arezi, Bahram; Hogrefe, Holly; Sorge, Joseph A.; Hansen, Connie Jo  
PA Stratagene, USA  
SO U.S. Pat. Appl. Publ., 51 pp., Cont.-in-part of U.S. Ser. No. 223,650.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003228616	A1	20031211	US 2003-435766	20030512
	WO 2001032887	A1	20010510	WO 2000-US29706	20001027
	W: AU, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 2003157483	A1	20030821	US 2001-896923	20010629
	US 2004009486	A1	20040115	US 2002-223650	20020819
PRAI	US 1999-162600P	P	19991029		
	US 2000-698341	A2	20001027		
	WO 2000-US29706	A	20001027		
	US 2001-896923	A2	20010629		
	US 2002-223650	A2	20020819		
AB	The invention relates to the discovery of thermostable DNA polymerases, e.g., Archaeal DNA polymerases, that bear one or more mutations resulting in increased reverse transcriptase activity relative to their unmodified wild-type forms. Wildtype (exo+) JDF-3 DNA polymerase and JDF-3 DNA polymerase substantially lacking 3'-5' exonuclease activity (exo) were prepared. Point mutations phenylalanine (F), tyrosine (Y), and tryptophan (W) were introduced at leucine (L) 409 of exo- and exo+Pfu and at L408 of exo- and exo+JDF-3 DNA polymerases using the Quikchange site directed mutagenesis kit (Stratagene). Partially purified preps. of the exo- and exo+ JDF-3 L408F and L408Y and Pfu L409F and L409Y showed improved RT activity compared to wild type JDF-3 and Pfu. Purified preps. of the exo-JDF-3 L408H and L408F showed improved RT activity compared to wild type JDF-3 and Pfu. The results demonstrate that adding DMSO significantly improves the reverse transcriptase activity of exo+ Pfu L409Y.				
IT	Protein sequences cDNA sequences (DNA polymerase mutants with increased reverse transcriptase activity)				
IT	Enzymes, biological studies RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (RecA, fusion products with DNA polymerases; DNA polymerase mutants with increased reverse transcriptase activity)				
L9	ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN				
AN	2000:666860 CAPLUS				
DN	133:262243				
TI	Improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved cDNA cloning				
IN	Pelletier, Jerry				
PA	McGill University, Can.				
SO	PCT Int. Appl., 43 pp.				
	CODEN: PIXXD2				
DT	Patent				
LA	English				
FAN.CNT 1					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000055307	A2	20000921	WO 2000-CA261	20000310
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1165760	A2	20020102	EP 2000-908881	20000310
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	US 2002119467	A1	20020829	US 2001-954512	20010912

PRAI US 1999-124011P P 19990312  
WO 2000-CA261 W 20000310

AB The present invention relates to genetic engineering, and especially to **cDNA** synthesis and **cDNA** cloning. More specifically, a method is presented for increasing the processivity of a DNA- or RNA-dependent RNA- or DNA-polymerase comprising an addition of a general nucleic acid binding protein. In particular, the present invention relates to methods for increasing the processivity of reverse **transcriptase** (RT) *E. coli* DNA polymerase and T7 DNA polymerase using a nucleic acid binding protein such as Ncp7, **recA**, SSB and T4gp32. The invention further relates to assays to identify and select agents capable of increasing the processivity of a DNA or RNA-dependent polymerase, such as MMTV RT, AMV RT, T7 DNA polymerase and *E. coli* DNA polymerase. In a particularly preferred embodiment, the invention relates to a method for increasing the generation of full-length **cDNA** clones using a nucleic acid binding protein such as Ncp7, **recA**, SSB and T4gp32.

TI Improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved **cDNA** cloning

AB The present invention relates to genetic engineering, and especially to **cDNA** synthesis and **cDNA** cloning. More specifically, a method is presented for increasing the processivity of a DNA- or RNA-dependent RNA- or DNA-polymerase comprising an addition of a general nucleic acid binding protein. In particular, the present invention relates to methods for increasing the processivity of reverse **transcriptase** (RT) *E. coli* DNA polymerase and T7 DNA polymerase using a nucleic acid binding protein such as Ncp7, **recA**, SSB and T4gp32. The invention further relates to assays to identify and select agents capable of increasing the processivity of a DNA or RNA-dependent polymerase, such as MMTV RT, AMV RT, T7 DNA polymerase and *E. coli* DNA polymerase. In a particularly preferred embodiment, the invention relates to a method for increasing the generation of full-length **cDNA** clones using a nucleic acid binding protein such as Ncp7, **recA**, SSB and T4gp32.

ST reverse transcriptase processivity RNA binding protein; DNA polymerase processivity DNA binding protein; **cDNA** cloning polymerase nucleic acid binding protein

IT Proteins, specific or class  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(DNA-binding; improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved **cDNA** cloning)

IT Proteins, specific or class  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(NC(p7) (nucleocapsid, p7), of HIV; improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved **cDNA** cloning)

IT Proteins, specific or class  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(RNA-binding; improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved **cDNA** cloning)

IT Proteins, specific or class  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(SSB (single-stranded DNA-binding); improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved **cDNA** cloning)

IT Proteins, specific or class  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(gene 32; improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved **cDNA** cloning)

IT Enzymes, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(gene recA; improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved **cDNA** cloning)

IT **cDNA**  
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)  
(improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved **cDNA** cloning)

IT Proteins, specific or class  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(nucleocapsid, retroviral; improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved **cDNA** cloning)

IT 9068-38-6, RNA-dependent DNA polymerase  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(of MMLV or AMV; improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved **cDNA** cloning)

IT 9012-90-2, DNA-dependent DNA polymerase  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(of T7 or *E. coli*; improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved **cDNA** cloning)

IT 296363-37-6 296363-38-7 296363-39-8  
RL: PRP (Properties)  
(unclaimed sequence; improving processivity of DNA- or RNA-dependent polymerases with nucleic acid-binding proteins and application to improved **cDNA** cloning)

L9 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN  
AN 2000:897365 CAPLUS  
DN 135:72094  
TI RecA-independent ectopic transposition in vivo of a bacterial group II intron  
AU Martinez-Abarca, Francisco; Toro, Nicolas  
CS Grupo de Ecologia Genetica, Estacion Experimental del Zaidin, Consejo Superior de Investigaciones Cientificas, Granada, 18008, Spain  
SO Nucleic Acids Research (2000), 28(21), 4397-4402  
CODEN: NARHAD; ISSN: 0305-1048  
PB Oxford University Press  
DT Journal  
LA English  
AB RmInt1 is a group II intron of *Sinorhizobium meliloti* which was initially found within the insertion sequence ISRm2011-2. Although the RmInt1 intron-encoded protein lacks a recognizable endonuclease domain, it is able to mediate insertion of RmInt1 at an Intron-specific location in intronless ISRm2011-2 recipient DNA, a phenomenon termed homing. Here we have characterized three addnl. insertion sites of RmInt1 in the genome of *S. meliloti*. Two of these sites are within IS elements closely related to IS630-Tc1 family. The third site is in the oxi1 gene, which encodes a putative oxide reductase. The newly identified integration sites contain

conserved intron-binding site (IBS1 and IB2S) and 5' sequences (14 bp). The RNA of the intron-containing oxil gene is able to splice and the oxil site is a DNA target for RmInt1 transposition in vivo. Ectopic transposition of RmInt1 into the oxil gene occurs at 20-fold lower efficiency than into the homing site (ISRM2011-2) and is independent of the major RecA recombination pathway. The possibility that transposition of RmInt1 to the oxil site occurs by reverse splicing into DNA is discussed.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

ST Sinorhizobium group II intron transposition; sequence Sinorhizobium intron reverse transcriptase transposase gene oxil cDNA

IT cDNA sequences  
(for Sinorhizobium meliloti group II intron reverse transcriptase gene)

IT 9068-38-6, Reverse transcriptase  
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL  
(Biological study)

(gene for; RecA-independent ectopic transposition in vivo of  
a bacterial group II intron)

=>